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Qy	552	caatctgggttaaacatccacacggtcttataaataacatcagtttcaaatggaaggttgttgta	611
Dh	552	CAATCTGGGTAAATCCACGCTTTTAATTAACATCAATGTTCAAACTGGACGGTTGTCTGA	611
Qy	612	cactcaacgctacatcttgaatcaataatacttcaatcttcttcgacaaagaatctgaagaa	671
Dh	612	CACCTACCCCTCACTCTGATGATCAAAATCTTCATCTGTTCCGAACAAACATGAAACAAAA	671
Qy	672	agaaatcaaaagacgctgtatcgacaacacgctccaaatctctgtatccttgaaaagatctcggg	731
Dh	672	AGAAATCAAAAGACTGTATCGAACACAGTTCATTTCTGTATCTGAAAGACTTCTGGG	731
Qy	732	tgaactacgctgacgatacgacaacacgtaactacatgcttgaatctgtatagatccgaacaata	791
Dh	732	TGACTACCTCGTAGTACGACAAACCGTACTCTACATGCTGATCTGTACGATCGAAACAAATA	791
Qy	792	cgcttgacgctcaacaaatgtaggttatccgacggttacaagtaacgtaaaaggttcgacgttc	851
Dh	792	CGTTGACGCTCAACATGTATAGTATCCGCGGTTACATGATCTCGAAAGGTCCGCTGGTT	851
Qy	852	tgtatgactacacaacatcattccctgaactcttccctgtatccgltgacgttgataccaattcat	911
Dh	852	TGTTATGACTACCAACATCTACCTGAACCTTTCCCTGTACCGTGTACCAATTCATCAT	911
Qy	912	caagaaatacgctctgttgaatacaagagacaatagtctgcgaacaaatgacgtgtatacat	971
Dh	912	CAAGAAATACGGCTTGTGTTACAAAGAACATATCTGTCCACAAATATCTGTATATCAT	971
Qy	972	caatgtctgagttaagaacaaagaataacgctctgtaaccaatgctctcgaagctgggt	1031
Dh	972	CAATGTCTGATGTTAAGAACAAAGATACGCTCTGCTACCAATCTTCTCAGCTGTGT	1031
Qy	1032	agaaagaactgtctgtctgtctgaaatcccggaacgttgtatctgactgtcgaagtagtgt	1091
Dh	1032	AGAAAGAACTGTCTGTCTGTGGAATCCCGGACGTTGTGTATCTGTCTCAGACTTGT	1091
Qy	1092	aatgaataccaaagaacagcagggatcactacaataatgacaatgaactctgcagaaca	1151
Dh	1092	AATGAATATCCAAAGAACACAGGGTATACATTAACAAATGCAAAATGATATCGACGACAA	1151
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Qy	1212	tgtcttcaaacggtatacatctgtaagatcgaaagttctctctcgcacatctgggtgtctctg	1271
Dh	1212	TGCTTCCAACTGTACATCTCTAGATCGAAAGTTCTCTCTGCACTGTGGGTGCTCTTG	1271
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Dh	1272	GGAGTTCATCCCGGTATGATGACGGTGTGGGTGAGAGTCCGCTGTAA	1317

RESULT 4

US-08-480-804-25

Sequence 25 Application US/08480604A

Patent No. 576139

GENERAL INFORMATION:

APPLICANT: KINK, JOHN A.

APPLICANT: THALLEY, BRUCE S.

APPLICANT: PADHIE, NISHA V.

APPLICANT: FIRCH, JOSEPH R.

APPLICANT: STAFFORD, DOUGLAS C.

TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND PREVENTION OF C. DIFFICILE DISEASE

NUMBER OF SEQUENCES: 32

CORRESPONDENCE ADDRESS:

ADDRESSEE: MEDLIN & CARROLL, LLP

STREET: 220 MONTGOMERY STREET, SUITE 2200

CITY: SAN FRANCISCO

STATE: CALIFORNIA

US-08-480-804-25

Sequence 25 Application US/08480604A

Patent No. 576139

GENERAL INFORMATION:

APPLICANT: KINK, JOHN A.

APPLICANT: THALLEY, BRUCE S.

APPLICANT: PADHIE, NISHA V.

APPLICANT: FIRCH, JOSEPH R.

APPLICANT: STAFFORD, DOUGLAS C.

TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND PREVENTION OF C. DIFFICILE DISEASE

NUMBER OF SEQUENCES: 32

CORRESPONDENCE ADDRESS:

ADDRESSEE: MEDLIN & CARROLL, LLP

STREET: 220 MONTGOMERY STREET, SUITE 2200

CITY: SAN FRANCISCO

STATE: CALIFORNIA

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: COUNTRY: UNITED STATES OF AMERICA
: ZIP: 94104
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: Patentin Release #1.0, Version #1.30
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/08/480,604A
: FILING DATE: 07-JUN-1995
: CLASSIFICATION: 424
: PRIORITY APPLICATION DATA:
: APPLICATION NUMBER: US 08/422,711
: FILING DATE: 14-APR-1995
: PRIORITY APPLICATION DATA:
: APPLICATION NUMBER: US 08/405,496
: FILING DATE: 16-MAR-1995
: PRIORITY APPLICATION DATA:
: APPLICATION NUMBER: US 08/329,154
: FILING DATE: 25-OCT-1994
: PRIORITY APPLICATION DATA:
: APPLICATION NUMBER: US 08/161,907
: FILING DATE: 02-DEC-1993
: PRIORITY APPLICATION DATA:
: APPLICATION NUMBER: US 07/985,321
: FILING DATE: 04-DEC-1992
: PRIORITY APPLICATION DATA:
: APPLICATION NUMBER: US 07/429,791
: FILING DATE: 31-OCT-1989
: ATTORNEY/AGENT INFORMATION:
: NAME: INGOLTA, DIANE E.
: REGISTRATION NUMBER: 40,027
: REFERENCE/DOCKET NUMBER: OPMD-01763
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (415) 705-8410
: TELEFAX: (415) 397-8338
: INFORMATION FOR SEQ ID NO: 25:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 1402 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: double
: TOPOLOGY: linear
: MOLECULE TYPE: DNA (genomic)
: FEATURE:
: NAME/KEY: CDS
: LOCATION: 1..1386
: US-08-480-604A-25

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Best Local Similarity 99.9% Pred. No. 0:
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: Patent No. 591965

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ZIP: 94104
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MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,604A
FILING DATE: 07-JUN-1995
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/422,711
FILING DATE: 14-APR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/405,496
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/161,907
FILING DATE: 02-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/985,321
FILING DATE: 04-DEC-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/429,791
FILING DATE: 31-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: INGOLIA, DIANE E.
REGISTRATION NUMBER: 40,027
REFERENCE/DOCKET NUMBER: OPND-01763
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 1402 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
FEATURE:
NAME/KEY: CDS
LOCATION: 1..1386
US-08-480-604A-25

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Best Local Similarity 100.0%: Pred. No. 0:
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RESULT 5
US-08-405-496A-25
; Sequence 25, Application US/08405496A
; Patent No. 591965

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GenCore version 4.5
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

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Gapop 10.0, Gapext 1.0

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Total number of hits satisfying chosen parameters: 767066

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

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7	1264.4	54.9	3891	1	US-08-480-604A-27
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ALIGNMENTS

RESULT 1
US-08-480-604A-22
Sequence 22, Appl
Patent No. 5736139
Application US/08480604A

GENERAL INFORMATION:
APPLICANT: KINK, JOHN A.
APPLICANT: THALLEY, BRUCE S.
APPLICANT: PADHYE, NISHA V.
APPLICANT: FTRCA, JOSEPH R.
APPLICANT: STAFFORD, DOUGLAS C.
TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND PREVENTION OF C. DIFFICILE DISEASE
NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: MEDLEN & CARROLL, LLP
STREET: 220 MONTGOMERY STREET, SUITE 2200
CITY: SAN FRANCISCO
STATE: CALIFORNIA
COUNTRY: UNITED STATES OF AMERICA
ZIP: 94104

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,604A
FILING DATE: 07-JUN-1995

CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/422,711
FILING DATE: 14-APR-1995

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/405,496
FILING DATE: 16-MAR-1995

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/329,154
FILING DATE: 25-OCT-1994

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/161,907
FILING DATE: 02-DEC-1993

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/985,321
FILING DATE: 04-DEC-1992

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/429,791
FILING DATE: 31-OCT-1989

ATTORNEY/AGENT INFORMATION:
NAME: INGOLIA, DIANE E.
REGISTRATION NUMBER: 40,027

John A. Kink

*6290560
5915065*

GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.

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Run on: September 16, 2002, 21:29:41 ; Search time 7254.67 Seconds

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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41	166.4	12.6	3754	6	A42478	A42478 Sequence 6
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ACCESSION AR000029
VERSION AR000029.1 GI:3962560
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 1330)
AUTHORS Kink,J.A., Thalley,B.S., Stafford,D.C., Pirca,J.R. and Padhye,N.V.
TITLE Treatment of Clostridium difficile induced disease
JOURNAL Patent: US 5736139-A 22 07-APR-1998;
FEATURES
source Location/Qualifiers
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BASE COUNT 400 a 339 c 246 g 345 t
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Query Match 98.6%; Score 1304.4; DB 6; Length 1330;
Best Local Similarity 99.9%; Pred. No. 0;

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JOURNAL	Vaccine and antitoxin for the treatment of <i>C. difficile</i> disease				
FEATURES	Patent: US 6290960-A 22.18-SEP-2001.				
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 ACCESSION U22962
 VERSION U22962.1 GI:733428
 KEYWORDS
 SOURCE synthetic construct.
 ORGANISM
 REFERENCE
 AUTHORS 1 (bases 1 to 1338)
 TITLE Clayton, M.A., Clayton, J.M., Brown, D.R. and Middlebrook, J.L.
 PROTECTIVE VACCINATION WITH A RECOMBINANT FRAGMENT OF CLOSTRIDIUM
 BOTULINUM NEUROTOXIN SEROTYPE A EXPRESSED FROM A SYNTHETIC GENE IN
 ESCHERICHIA COLI.
 JOURNAL Infect. Immun. 63 (7), 2738-2742 (1995)
 MEDLINE 95310035
 REFERENCE 2 (bases 1 to 1338)
 AUTHORS Brown, D.R.
 TITLE Direct Submission
 JOURNAL Submitted (17-MAR-1995) Douglas R. Brown, Toxicology, U. S. Army
 Medical Research Institute of Infectious Diseases, Bldg. 1425, Fort
 Detrick, Frederick, MD 21702-5011, USA
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 Best Local Similarity 99.9%; Pred. No. 0;
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: REFERENCE/DOCKET NUMBER: OPND-01763
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (415) 705-8410
: TELEFAX: (415) 397-8338
: INFORMATION FOR SEQ ID NO: 22:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 1330 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: double
: TOPOLOGY: linear
: MOLECULE TYPE: DNA (genomic)
: FEATURE:
: NAME/KEY: CDS
: LOCATION: 1..1314
: US-08-480-604A-22

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RESULT 2
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 : Patent No. 55919665
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 : GENERAL INFORMATION:
 : APPLICANT: WILLIAMS, JAMES A.
 : TITLE OF INVENTION: VACCINE FOR CLOSTRIDIUM BOTULINUM
 : TITLE OF INVENTION: NEUROTOXIN
 : NUMBER OF SEQUENCES: 30
 : CORRESPONDENCE ADDRESS:
 : ADDRESSEE: MEDLEN & CARROLL, LLP
 : STREET: 220 MONTGOMERY STREET, SUITE 2200
 : CITY: SAN FRANCISCO
 : STATE: CALIFORNIA
 : COUNTRY: USA
 : ZIP: 94104
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 : COMPUTER READABLE FORM:
 : MEDIUM TYPE: Floppy disk
 : COMPUTER: IBM PC compatible
 : OPERATING SYSTEM: PC-DOS/MS-DOS
 : SOFTWARE: PatentIn Release #1.0, Version #1.30
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 : CURRENT APPLICATION DATA:
 : APPLICATION NUMBER: US/08/405,496A
 : FILING DATE: 16-MAR-1995
 :
 : CLASSIFICATION: 424
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 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: US 08/329,154
 : FILING DATE: 25-OCT-1994
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 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: US 08/161,907
 : FILING DATE: 02-DEC-1993
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 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: US 07/985,321
 : FILING DATE: 04-DEC-1992
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 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: US 07/429,791

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: FILING DATE: 31-OCT-1989
: ATTORNEY/AGENT INFORMATION:
: NAME: INGOLIA, DIANE E.
: REGISTRATION NUMBER: 40,027
: REFERENCE/DOCKET NUMBER: OPHD-01308
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (415) 705-8410
: TELEFAX: (415) 397-8338
: INFORMATION FOR SEQ ID NO: 22:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 1330 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: double
: TOPOLOGY: linear
: MOLECULE TYPE: DNA (genomic)
: FEATURE:
: NAME/KEY: CDS
: LOCATION: 1..1314
: US-08-405-496a-22

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Query Match      98.6%   Score 1304.4; DB 2; Length 1330;
Best Local Similarity 99.9%   Pred. No. 0;
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Qy 372 aatcaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 431
Db 372 AATATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 431
Qy 432 tcagaatcaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 491
Db 432 TCAGATATCATCATCTGATGATGATGATGATGATGATGATGATGATGATGATGATG 491
Qy 492 tcgtcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 551
Db 492 TCGTGTAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 551
Qy 552 caactcgtcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 611
Db 552 CAATCTGGTAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 611
Qy 612 caactcgtcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 671
Db 612 CACTCAGCGTATCATCTGATGATGATGATGATGATGATGATGATGATGATGATGATG 671
Qy 672 agaatcaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 731
Db 672 AGAATCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 731

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Qy 732 tgactacctcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 791
Db 732 TGACTACCTCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 791
Qy 792 cgttcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 851
Db 792 CGTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 851
Qy 852 tgatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 911
Db 852 TGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 911
Qy 912 caagaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 971
Db 912 CAGAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 971
Qy 972 caatcgtcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 1031
Db 972 CATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1031
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Db 1032 AGAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1091
Qy 1092 aatgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 1151
Db 1092 AATGAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1151
Qy 1152 caatcgtcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 1211
Db 1152 CATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1211
Qy 1212 tgcttcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 1271
Db 1212 TGCTTCGAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1271
Qy 1272 ggaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgaatcgtc 1317
Db 1272 GGAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1317

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RESULT 3
US-08-915-436-22
: Sequence 22; Application US/08915136
: Patent No. 6290960
: GENERAL INFORMATION:
: APPLICANT: KINK, JOHN A.
: APPLICANT: THALEY, BRUCE S.
: APPLICANT: PADHYE, NISHA V.
: APPLICANT: FIRCA, JOSEPH R.
: APPLICANT: STAFFORD, DOUGLAS C.
: TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
: NUMBER OF SEQUENCES: 32
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: MEDLEN & CARROLL, LLP
: STREET: 220 MONTGOMERY STREET, SUITE 2200
: CITY: SAN FRANCISCO
: STATE: CALIFORNIA
: COUNTRY: UNITED STATES OF AMERICA
: ZIP: 94104
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: PatentIn Release #1.0, Version #1.30
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/08/915,136
: FILING DATE:
: CLASSIFICATION:
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: 08/480,604
: FILING DATE:

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